

## INTERNATIONAL SEARCH REPORT

Inte	rial Application No
PCI/1B 03/05013	

A. CLASSIFICATION OF SUBJECT MATTER
IPC 7 H05B41/282 H05B41/288 H05B41/04

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED
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Minimum documentation searched (classification system followed by classification symbols)

IPC 7 H05B

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal

C. DOCUMENTS CONSIDERED TO BE RELEVANT
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Category	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	US 6 437 515 B1 (SHINBORI HIROICHI ET AL) 20 August 2002 (2002-08-20) column 13, line 36 -column 13, line 57; figure 14 column 5, line 36 -column 6, line 65; figure 2 ---	1-6
A	EP 0 633 711 A (TOTO LTD) 11 January 1995 (1995-01-11) column 6, line 1 -column 7, line 50; figure 1 ---	1-6
A	US 6 324 078 B1 (HORI KAZUHIRO ET AL) 27 November 2001 (2001-11-27) column 5, line 18 -column 6, line 12; figures 1,2 column 16, line 40 -column 16, line 58; figure 26 ---	1-6
	-/-	

Further documents are listed in the continuation of box C.

Patent family members are listed in annex.

\* Special categories of cited documents :

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- \*E\* earlier document but published on or after the International filing date
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- \*O\* document referring to an oral disclosure, use, exhibition or other means
- \*P\* document published prior to the International filing date but later than the priority date claimed

- \*T\* later document published after the International filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
- \*X\* document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
- \*Y\* document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.
- \*&\* document member of the same patent family

Date of the actual completion of the International search	Date of mailing of the International search report
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5 February 2004

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## C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	US 5 962 981 A (KOMATSU NAOKI ET AL) 5 October 1999 (1999-10-05) column 6, line 64 -column 7, line 65; figures 5,7 ---	1-6
A	US 2002/070687 A1 (IWATA AKIHIKO ET AL) 13 June 2002 (2002-06-13) page 1, paragraph 4 -page 2, paragraph 13; figures 17-19 -----	1-6

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